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VIA E-FILING

The Honorable Leonard P. Stark
J. Caleb Boggs Federal Building
844 N. King Street
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Wilmington, DE 19801-3556

FILED UNDER SEAL

**RE: *Intellectual Ventures I LLC v. AT&T Mobility LLC, et al.,*
(C.A. Nos. 13-cv-1668, 69, 70, 71, &72)**

Dear Chief Judge Stark:

Defendants¹ have brought a thinly-veiled summary judgment motion—nominally titled a “motion to strike”—asking the Court to preemptively reject IV’s infringement theories. Plaintiff Intellectual Ventures I LLC (“IV”) served timely final infringement contentions, which comport with the Court’s claim construction order and adequately disclose IV’s infringement theories. There is no basis for granting the extraordinary relief that Defendants request.

I. Background

IV filed suit in October 2013. *See* D.I. 1.² Ericsson intervened, and from June 2015 through September 2016, IV’s experts diligently inspected millions of lines of Ericsson’s source code and printed portions necessary to show infringement. Having identified the relevant code, on February 9, 2016, IV served a Rule 30(b)(6) deposition notice on Ericsson, seeking source code witnesses. *See* Ex. 1. Ericsson did not make its witnesses available until the end of June, and the depositions did not occur until mid-July. *See* Ex. 2. The Court held a claim construction hearing on April 4, 2016, and issued its claim construction ruling on August 12. *See* D.I. 378, 379. As permitted by the Scheduling Order (D.I. 90, 132, 360), IV provided final non-infringement contentions two weeks later, on August 26.

II. Defendants’ Motion is Procedurally Improper and Not Ripe.

Defendants’ letter brief short-circuits the Court’s summary judgment procedure and seeks to deny IV the procedural safeguards of Rule 56. Defendants make many factual assertions in their motion, but have not submitted declarations or admissible evidence as required by the rule. Unlike the sparse record here, the cases cited by Defendants involved fully developed summary judgment motions (*Akzo Nobel Coatings v. Dow Chemical Co.* and *TIP Systems, LLC v. Phillips & Brooks/Gladwin, Inc.*) or post-trial motions for judgment as a matter of law (*Texas Instruments Inc. v. Cypress Semiconductor Corp.*). Defendants cite only one case involving a

¹ “Defendants” as used herein refers to the AT&T, Cricket, T-Mobile, Sprint, and U.S. Cellular defendants, as well as intervenor Ericsson.

² Unless otherwise noted, all docket numbers refer to the docket of Case No. 13-cv-1668-LPS.

motion to strike, *Intellectual Ventures I LLC et al. v. Symantec Corp. et al.*, C.A. No. 13-cv-440-LPS (D. Del.). See Def. Br. Ex. 6. The hearing in *Symantec* occurred after the plaintiff (also IV) had served its opening expert report on infringement. Counsel conceded that it could not prove literal infringement, and both sides seemed to agree that the issue presented was a purely legal issue regarding whether an element of a claim was “immaterial”. See C.A. No. 13-440-LPS, D.I. 238. See Def. Br. Ex. 6. Here, by contrast, IV can prove literal infringement under the Court’s constructions, and IV has provided equivalents for the purportedly missing claim elements. There are disputed issues of fact, and a short letter brief is inadequate to develop the issues. To grant Defendants’ motion would violate Rule 56 and IV’s right to due process of law.

III. IV’s ‘248 Patent Infringement Contentions Comport with the Court’s Claim Construction Order and Adequately Disclose IV’s Infringement Theory.

The ‘248 Patent relates to allocating bandwidth in wireless telecommunications systems. Ordinary networks route data packets using address information and without reference to the substantive content of the packets, much like the mail system uses the address on an envelope. Indeed, the packets’ anonymity is a benefit, as each “layer” through which the data is sent need not worry about the packets’ contents or what the other layers are doing. Network engineers have developed a conceptual model for thinking about the layering process called the Open Systems Interworking (“OSI”) Model. Layer 7 of that model is called the application layer. See Ex. 3 at 22:32-37.

As reflected in IV’s infringement contentions, today’s LTE systems differentiate between packets of different application types. For example, LTE uses “Voice over IP,” which involves sending data packets with voice information. These packets must be delivered promptly lest call quality suffer. In contrast, precise timing is less important for packets relating to web applications. As a result, [REDACTED] Voice and web applications are “applications” and reside at the application layer (*i.e.* layer 7 of the OSI Model).

IV’s infringement contentions state a valid theory that comports with the Court’s construction of the term “application-aware,” the construction including two requirements: (1) that the resource allocator have “knowledge of the type of data application”; and (2) that it “take[] into account, when allocating bandwidth, information about applications at [OSI] application layer 7.” See D.I. 378 at 15-16. As indicated in IV’s contentions, [REDACTED]

3GPP TS 23.203, Section 6.1.7, including Table 6.1.7 (reproduced below), explains that each IP flow associated with a software application is associated with a SDF and mapped to an EPS Bearer, and therefore to an E-RAB. See TS 23.203 § 6.1.7 [REDACTED] Furthermore, as shown in Table 6.1.7, an EPS bearer/E-RAB pair is assigned a QoS Class Identifier (“QCI”) based on the application type or types of its assigned IP flows. See *id.* Table 6.1.7. For example, data supporting a real-time conversational voice application such as a mobile phone call may be assigned a QCI value of 1, and ordinary web and email application data may be assigned a QCI value of 6, 8 or 9. *Id.*

Table 6.1.7: Standardized QCI characteristics

QCI	Resource Type	Priority	Packet Delay Budget (NOTE 1)	Packet Error Loss Rate (NOTE 2)	Example Services
1 (NOTE 3)		2	100 ms	10 ⁻²	Conversational Voice

2 (NOTE 3)	GBR	4	150 ms	10^{-3}	Conversational Video (Live Streaming)
3 (NOTE 3)		3	50 ms	10^{-3}	Real Time Gaming
4 (NOTE 3)		5	300 ms	10^{-6}	Non-Conversational Video (Buffered Streaming)
5 (NOTE 3)	Non-GBR	1	100 ms	10^{-6}	IMS Signalling
6 (NOTE 4)		6	300 ms	10^{-6}	Video (Buffered Streaming) TCP-based (e.g., www, e-mail, chat, ftp, p2p file sharing, progressive video, etc.)
7 (NOTE 3)		7	100 ms	10^{-3}	Voice, Video (Live Streaming) Interactive Gaming
8 (NOTE 5)		8	300 ms	10^{-6}	Video (Buffered Streaming) TCP-based (e.g., www, e-mail, chat, ftp, p2p file sharing, progressive video, etc.)
9 (NOTE 6)		9			

Def. Br. Ex. 1 at 4-5. IV's contentions explain that the accused "resource allocator at the MAC layer" knows the type of data application because "IP data flows through [the resource allocator]" are associated with a QCI that can be mapped, as shown above, to an application type or types. *Id.* at 4-5. IV's contentions explain that the resource allocator has knowledge of the type of data application from the application layer (a.k.a., "layer 7"), and takes that knowledge into account by using QCI values to allocate bandwidth. [REDACTED]

IV also incorporates its initial infringement contentions, which provide further detail: the Transport Endpoint ID ("TEID") found in the packet header is based on information from layer 7 and is used to assign packets to each data bearer associated with a QCI. *Id.* at 28; Def. Br. Ex. 2 at 8. During the *Markman* hearing, defense counsel stated that packet header information from layer 7 would satisfy the claim. *See* Ex. 4 at 131:1-11; *see also* Ex. 3 at 22:29-32, 45:55-60, 48:50-52, 50:17-24, and Fig. 7. TEID, identified in both IV's initial and final (at claim 2) contentions, is in the packet header and is based on information from the application layer, *i.e.* layer 7. *See* Def. Br. Ex. 2 at 8-10; Def. Br. Ex. 1 at 28, 38, 40.

Defendants criticize IV for not using the word "layer 7" in its contentions, but to an engineer the words "application layer" and "layer 7" are synonymous. Ex. 3 at 22:32-37 (discussing how information about the IP streams is communicated from "the application layer 35 (*i.e.* OSI level 7)" to the MAC layer). Given defense counsel's admission, IV's initial infringement contentions remain valid. IV's principal concern about Defendants' construction was that it injected additional words which are likely to confuse the jury. Ex. 4 at 142:16-143:21 ("MR. BLACK: ... I'm also not sure it is going to help the jury to put the international standards organization, open system inner working [*sic*] application layer 7 right into the claim."). IV remains concerned about jury confusion, but there is no confusion among the parties or their experts as to the meaning of IV's infringement claim. Defendants are on adequate notice of IV's '248 Patent literal infringement theory, and there is no basis for striking the contentions.

IV. IV's DOE Contentions Provide Defendants Adequate Notice of Its Infringement Theories and Do Not Vitate the Court's Claim Construction.

Defendants seek to strike IV's DOE contentions relating to (1) the '248 Patent; and

(2) the “encoding” terms of claims 1 and 9 of the ‘831 Patent (*see* Def. Br. at 2), but provide no sound basis for doing so. In deciding whether to strike critical evidence, courts in the Third Circuit weigh the *Pennypack* factors: “(1) the surprise or prejudice to the moving party; (2) the ability of the moving party to cure any such prejudice; (3) the extent to which allowing the testimony would disrupt the order and efficiency of trial; (4) bad faith or willfulness in failing to comply with the court’s order; (5) the explanation for the failure to disclose; and (6) the importance of the testimony sought to be excluded.” *Withrow v. Spears*, 967 F. Supp. 2d 982, 1000-01 (D. Del. 2013) (citing *Meyers v. Pennypack Woods Home Ownership Ass’n*, 559 F.2d 894, 904-05 (3d Cir. 1977)). Striking material that might make or break a plaintiff’s case “is an ‘extreme sanction, not normally to be imposed absent a showing of willful deception or flagrant disregard of a court order by the proponent of the evidence[.]’” *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 763 F. Supp. 2d 671, 692 (D. Del. 2010) (Stark, J.). Defendants identify no violation of a court order, much less willful deception, bad faith, or incurable prejudice that would justify the drastic relief they seek. *See Withrow*, 967 F. Supp. 2d at 1007-08 (denying motion to strike expert reply report that went beyond scope of rebuttal).

A. IV’s ‘248 Patent DOE Theory Provides Sufficient Notice.

IV strongly believes that Defendants literally infringe the ‘248 Patent based on the Court’s claim construction. As an alternative theory, IV provided a DOE theory on August 26, 2016, which was the date for the provision of final infringement contentions. Defendants attack IV’s DOE theory for the ‘248 Patent, arguing that it “vitiates the Court’s construction of the term ‘application aware,’” lacks “evidentiary support,” and fails to “identify an equivalent for the ‘application-aware’ limitation.” Def. Br. at 2. But because IV’s literal infringement contentions are adequate (as discussed above), IV’s DOE theory—which is based on the *same* evidence—is also adequate. IV’s literal infringement claim accuses the resource allocator, which uses a mechanism to identify a QCI value (and therefore an application type), and then uses that QCI value when allocating bandwidth. *See, e.g.*, Def. Br. Ex. 1 at 4-10. IV’s DOE theory also accuses the resource allocator and merely argues that if the QCI-identification and bandwidth-allocation mechanisms within the resource allocator do not literally infringe, they perform the same function in the same way to achieve the same result and therefore infringe under the doctrine of equivalents. *See* Def. Br. Ex. 1 at 25. IV had no obligation to re-explain these mechanisms after doing so in its literal infringement charts.

B. IV’s Contentions Provide Notice of Its ‘831 Patent DOE Theory.

Defendants also seek to strike IV’s DOE contentions as to the “encoding” term of claims 1 and 9 of the ‘831 Patent, arguing that the contentions “fail[] to identify any equivalent for the encoding limitations . . . and do[] not even include an identification of the ‘packets’ required by the claims, never mind the requirement of interleaving” Def. Br. at 2. IV’s contentions clearly identify what it contends are “packets” and how “a discrete number” of those “packets” are “interleav[ed] . . . together.” IV states that the accused “eNBs perform the step of ‘encoding packets into packet blocks’ by encoding transport blocks (*i.e.*, MAC-PDUs) that are comprised of packets (*e.g.*, MAC SDUs, RLC PDUs, IP Packets) into blocks (*i.e.*, code words).” Def. Br. Ex. 3 at 7; *see id.* at 7-13 (providing a detailed technical description of that encoding process); *see also* Ex. 5 (Ducker letter). As discussed above in connection with the ‘248 Patent, the DOE theory IV raises for the ‘831 Patent is a legal alternative, which contends that the same

mechanisms are equivalent even if they do not literally infringe. Once expert reports are in, the experts may well differ on this point, but it is not one on which the Court can take judicial notice and simply dismiss IV's case.

V. IV's Infringement Contentions as to the '831 Patent Comport with the Court's Claim Construction.

Defendants ask the Court to strike IV's timely filed infringement contentions regarding the "signal drop-out characteristics" limitation in the '831 patent, arguing that IV should have amended its contentions earlier. Def. Br. at 3. But Defendants do not dispute that IV served its final infringement contentions in accordance with the parties' agreed-upon schedule. Defendants further acknowledge that IV's revised theory was added in response to the Court's August 12, 2016 claim construction order. Def. Br. at 3. Once again, Defendants identify no violation of a court order, bad faith, deception, or incurable prejudice that would justify granting their motion.

IV diligently investigated the non-acknowledgement signal ("AK/NACK"), which it identified as a second "signal drop-out characteristic" in its final infringement contentions. The AK/NACK is part of an operation called Hybrid Automatic Repeat Request ("HARQ"). In February, IV sought Ericsson deposition testimony regarding the source code that implements the HARQ operation. However, Ericsson did not provide a witness until July. IV then amended its infringement contentions, relying on that testimony, in August. *See* Def. Br. Ex. 3 at 4-7.

Defendants' argue they are prejudiced because, had they known IV intended to rely on this infringing aspect of their networks, they might have conducted a different prior-art search, or selected different prior-art references. The argument makes no sense, and in any case, fails to address the *Pennypack* factors. The validity analysis must be driven by the asserted patent, not the accused product. The Court adopted Defendants' claim construction, which is what they used in identifying prior art. Defendants cannot plausibly claim surprise, and provide no proof, in any case, of prejudice. Indeed, it is IV that would be prejudiced if the Court were to strike IV's timely disclosed contentions relating to the HARQ procedure. IV would be procedurally barred from proving Defendants' infringement under the Court's August 12, 2016, claim construction. The Court should deny Defendants' motion to strike and let the parties resolve these issues on the merits.

Respectfully submitted,

/s/ Brian E. Farnan

Brian E. Farnan

cc: Counsel of Record (via E-Mail)